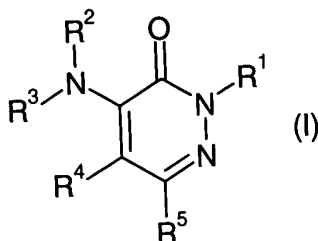


AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) A pyridazinone derivative of formula (I)



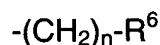
wherein

R¹ represents:

- a hydrogen atom;
- a group ~~selected~~chosen from acyl, alkoxycarbonyl, carbamoyl, monoalkylcarbamoyl ~~or~~ and dialkylcarbamoyl;
- an alkyl, alkenyl or alkynyl group, ~~which~~ wherein the alkyl, alkenyl or alkynyl group is optionally substituted by one or more substituents ~~selected~~chosen from halogen atoms, ~~and~~ hydroxy, alkoxy, aryloxy, alkylthio, arylthio, oxo, amino, mono- ~~or~~ and di-alkylamino, acylamino, hydroxycarbonyl, alkoxycarbonyl, carbamoyl ~~or~~ and mono- ~~or~~ and di-alkylcarbamoyl groups;
- an aryl or heteroaryl group, ~~which~~ wherein the aryl or heteroaryl group is optionally substituted by one or more substituents ~~selected~~chosen from halogen atoms, ~~and~~ hydroxy, hydroxyalkyl, hydroxycarbonyl, alkoxy, alkylenedioxy, alkoxycarbonyl, aryloxy, acyl, acyloxy, alkylthio, arylthio, amino, nitro, cyano, mono- and ~~or~~ di-alkylamino, acylamino, carbamoyl, ~~or~~

mono- and ~~or~~-di-alkylcarbamoyl, difluoromethyl, trifluoromethyl, difluoromethoxy, and ~~or~~-trifluoromethoxy groups;

- a saturated or unsaturated heterocyclic group, ~~which~~ wherein the saturated or unsaturated heterocyclic group is optionally substituted by one or more substituents ~~selected~~ chosen from halogen atoms, ~~and~~-hydroxy, hydroxyalkyl, hydroxycarbonyl, alkoxy, alkylendioxy, alkoxycarbonyl, aryloxy, acyl, acyloxy, alkylthio, arylthio, oxo, amino, nitro, cyano, mono- ~~or~~ and di-alkylamino, acylamino, carbamoyl, ~~or~~-mono- ~~or~~ and di-alkylcarbamoyl, difluoromethyl, trifluoromethyl, difluoromethoxy, ~~or~~ and trifluoromethoxy groups; or
- a group of formula



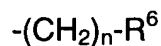
wherein n is an integer from 0 to 4 and R⁶ represents:

- a cycloalkyl or cycloalkenyl group;
- an aryl group, which is optionally substituted by one or more substituents ~~selected~~ chosen from halogen atoms, ~~and~~-alkyl, hydroxy, alkoxy, alkylendioxy, alkylthio, amino, mono- ~~or~~ and di-alkylamino, nitro, acyl, hydroxycarbonyl, alkoxycarbonyl, carbamoyl, mono- and ~~or~~-di-alkylcarbamoyl, cyano, trifluoromethyl, difluoromethoxy, and ~~or~~-trifluoromethoxy groups;
- or a 3- to 7-membered ring comprising from 1 to 4 heteroatoms ~~selected~~ chosen from nitrogen, oxygen and sulphur, which ring is optionally substituted by one or more substituents ~~selected~~ chosen from halogen atoms, ~~and~~-alkyl, hydroxy, alkoxy, alkylendioxy, amino, mono- and ~~or~~-di-alkylamino, nitro, cyano and ~~or~~-trifluoromethyl groups;

R² represents:

- a hydrogen atom;

- a group ~~selected~~chosen from acyl, alkoxycarbonyl, carbamoyl, monoalkylcarbamoyl and ~~or~~ dialkylcarbamoyl;
- an alkyl, alkenyl or alkynyl group, ~~which~~ wherein the alkyl, alkenyl or alkynyl group is optionally substituted by one or more substituents ~~selected~~chosen from halogen atoms, ~~and~~ hydroxy, alkoxy, hydroxycarbonyl, alkoxycarbonyl, aryloxy, alkylthio, arylthio, oxo, amino, mono- and ~~or~~ di-alkylamino, acylamino, carbamoyl, and ~~or~~ mono- and ~~or~~ di-alkylcarbamoyl groups;
- an aryl or heteroaryl group, ~~which~~ wherein the aryl or heteroaryl group is optionally substituted by one or more substituents ~~selected~~chosen from halogen atoms, ~~and~~ hydroxy, hydroxyalkyl, hydroxycarbonyl, alkoxy, alkylendioxy, alkoxycarbonyl, aryloxy, acyl, acyloxy, alkylthio, arylthio, amino, nitro, cyano, mono- and ~~or~~ di-alkylamino, acylamino, carbamoyl, ~~or~~ mono- and ~~or~~ di-alkylcarbamoyl, difluoromethyl, trifluoromethyl, difluoromethoxy, and ~~or~~ trifluoromethoxy groups;
- a saturated or unsaturated heterocyclic group, ~~which~~ wherein the saturated or unsaturated heterocyclic group is optionally substituted by one or more substituents ~~selected~~chosen from halogen atoms, ~~and~~ hydroxy, hydroxyalkyl, hydroxycarbonyl, alkoxy, alkylendioxy, alkoxycarbonyl, aryloxy, acyl, acyloxy, alkylthio, arylthio, oxo, amino, nitro, cyano, mono- and ~~or~~ di-alkylamino, acylamino, carbamoyl, ~~or~~ mono- and ~~or~~ di-alkylcarbamoyl, difluoromethyl, trifluoromethyl, difluoromethoxy and ~~or~~ trifluoromethoxy groups; or
- a group of formula



wherein n is an integer from 0 to 4 and R⁶ represents:

- a cycloalkyl or cycloalkenyl group;
- an aryl group, which is optionally substituted by one or more substituents ~~selected~~chosen from halogen atoms and alkyl,

hydroxy, alkoxy, alkylendioxy, alkylthio, amino, mono- and ~~or~~-di-alkylamino, nitro, acyl, hydroxycarbonyl, alkoxycarbonyl, carbamoyl, mono- and ~~or~~-di-alkylcarbamoyl, cyano, trifluoromethyl, difluoromethoxy, and ~~or~~-trifluoromethoxy groups;

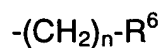
- or a 3- to 7-membered ring comprising from 1 to 4 heteroatoms ~~selected~~chosen from nitrogen, oxygen and sulphur, which ring is optionally substituted by one or more substituents ~~selected~~chosen from halogen atoms, and-alkyl, hydroxy, alkoxy, alkylendioxy, amino, mono- and ~~or~~-di-alkylamino, nitro, cyano, and ~~or~~-trifluoromethyl groups;

R³ represents a monocyclic or polycyclic aryl or a monocyclic or polycyclic heteroaryl group, which wherein the monocyclic or polycyclic aryl or the monocyclic or polycyclic heteroaryl group are is optionally substituted by one or more substituents ~~selected~~chosen from:

- halogen atoms;
- alkyl and alkylene groups, ~~which wherein the alkyl and alkylene groups~~ are optionally substituted by one or more substituents ~~selected~~chosen from halogen atoms, and-phenyl, hydroxy, alkoxy, aryloxy, alkylthio, arylthio, oxo, amino, mono- and ~~or~~-di-alkylamino, acylamino, hydroxycarbonyl, alkoxycarbonyl, carbamoyl, and ~~or~~-mono- and ~~or~~-di-alkylcarbamoyl groups; and
- phenyl, hydroxy, hydroxyalkyl, alkoxy, cycloalkoxy, nitro, cyano, aryloxy, alkylthio, arylthio, alkylsulfinyl, alkylsulfonyl, alkylsulfamoyl, -acyl, amino, mono- and ~~or~~-di-alkylamino, acylamino, hydroxycarbonyl, alkoxycarbonyl, carbamoyl, mono- and ~~or~~-di-alkylcarbamoyl, ureido, N'-alkylureido, N',N'-dialkylureido, alkylsulfamido, aminosulfonyl, mono- and ~~or~~-alkylaminosulfonyl, difluoromethoxy, and ~~or~~-trifluoromethoxy groups;

R⁴ represents:

- a hydrogen atom;
- a hydroxy, alkoxy, amino, monoalkylamino, dialkylamino or cyano group;
- an alkyl-, alkenyl or alkynyl group, ~~which~~ wherein the alkyl, alkenyl or alkynyl group is optionally substituted by one or more substituents ~~selected~~ chosen from halogen atoms, ~~and~~ hydroxy, acyloxy, alkoxy, aryloxy, alkylthio, arylthio, amino, mono- and ~~or~~ di-alkylamino, acylamino, hydroxycarbonyl, alkoxycarbonyl, alkoxyimino, carbamoyl, ~~and~~ mono- and ~~or~~ di-alkylcarbamoyl groups;
- or a group of formula

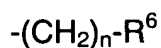


wherein n is an integer from 0 to 4 and R⁶ represents:

- a cycloalkyl or cycloalkenyl group;
- an aryl group, which is optionally substituted by one or more substituents ~~selected~~ chosen from halogen atoms, ~~and~~ alkyl, hydroxy, alkoxy, alkylenedioxy, alkylthio, amino, mono- and ~~or~~ di-alkylamino, nitro, acyl, hydroxycarbonyl, alkoxycarbonyl, carbamoyl, mono- and ~~or~~ di-alkylcarbamoyl, cyano, trifluoromethyl, difluoromethoxy, and ~~or~~ trifluoromethoxy groups;
- or a 3- to 7-membered ring comprising from 1 to 4 heteroatoms ~~selected~~ chosen from nitrogen, oxygen and sulphur, which ring is optionally substituted by one or more substituents ~~selected~~ chosen from halogen atoms, ~~and~~ alkyl, phenyl, alkoxyphenyl, halophenyl, pyridyl, alkoxycarbonyl, hydroxy, alkoxy, alkylenedioxy, amino, mono- and ~~or~~ di-alkylamino, nitro, cyano, and ~~or~~ trifluoromethyl groups;

R⁵ represents a group –COOR⁷ or a monocyclic or polycyclic aryl- or a monocyclic or polycyclic heteroaryl group, which-wherein the monocyclic or polycyclic aryl or the monocyclic or polycyclic heteroaryl group are is optionally substituted by one or more substituents ~~selected~~chosen from:

- halogen atoms;
- alkyl and alkenyl groups, ~~which-wherein the alkyl and alkenyl groups are~~ optionally substituted by one or more substituents ~~selected~~chosen from halogen atoms, ~~and~~ phenyl, hydroxy, hydroxyalkyl, alkoxy, aryloxy, alkylthio, arylthio, oxo, amino, mono- and ~~or~~-di-alkylamino, acylamino, hydroxycarbonyl, alkoxycarbonyl, carbamoyl, mono- and ~~or~~-di-alkylcarbamoyl groups; and
- phenyl, hydroxy, alkylenedioxy, alkoxy, cycloalkyloxy, alkylthio, alkylsulfinyl, alkylsulfonyl, alkylsulfamoyl, amino, mono- and ~~or~~-di-alkylamino, acylamino, nitro, acyl, hydroxycarbonyl, alkoxycarbonyl, carbamoyl, mono- and ~~or~~-di-alkylcarbamoyl, ureido, N'-alkylureido, N',N'-dialkylureido, alkylsulfamido, aminosulfonyl, mono- and ~~or~~-di-alkylaminosulfonyl, cyano, difluoromethoxy, and ~~or~~-trifluoromethoxy groups;
- wherein R⁷ represents
 - an alkyl, which is optionally substituted by one or more substituents ~~selected~~chosen from halogen atoms, ~~and~~ hydroxy, alkoxy, aryloxy, alkylthio, arylthio, oxo, amino, mono- and ~~or~~-di-alkylamino, acylamino, hydroxycarbonyl, alkoxycarbonyl, carbamoyl, and mono- and ~~or~~-di-alkylcarbamoyl groups,
 - or a group of formula



wherein n is an integer from 0 to 4 and R⁶ represents:

- a cycloalkyl or cycloalkenyl group;
- an aryl group, which is optionally substituted by one or more substituents ~~selected~~chosen from halogen atoms, ~~and~~ alkyl, hydroxy, alkoxy, alkylendioxy, alkylthio, amino, mono- ~~and~~ ~~or~~-di-alkylamino, nitro, acyl, hydroxycarbonyl, alkoxycarbonyl, carbamoyl, mono- ~~and~~ ~~or~~-di-alkylcarbamoyl, cyano, trifluoromethyl, difluoromethoxy, ~~and~~ ~~or~~-trifluoromethoxy groups;
- or a 3- to 7-membered ring comprising from 1 to 4 heteroatoms ~~selected~~chosen from nitrogen, oxygen and sulphur, which ring is optionally substituted by one or more substituents ~~selected~~chosen from halogen atoms, ~~and~~ alkyl, phenyl, alkoxyphenyl, halophenyl, pyridyl, alkoxycarbonyl, hydroxy, alkoxy, alkylendioxy, amino, mono- ~~and~~ ~~or~~-di-alkylamino, nitro, cyano, ~~and~~ ~~or~~-trifluoromethyl groups;

~~and their salts or N-oxides thereof~~ or a salt thereof, or a N-oxide thereof;

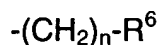
with the proviso that when R¹ is methyl, R² is H, and both R³ and R⁵ are phenyl then R⁴ is not a 1-hydroxyethyl group.

2. (Currently Amended) A compound according to claim 1, wherein R¹ is ~~selected~~chosen from the group consisting of hydrogen atoms and alkyl groups, ~~which~~wherein the alkyl groups are optionally substituted by one or more substituents ~~selected~~chosen from halogen atoms, ~~and~~ hydroxy, alkoxy, alkylthio, hydroxycarbonyl and alkoxycarbonyl groups
3. (Currently Amended) A compound according to claim 2 wherein R¹ is ~~selected~~chosen from ~~the group consisting of~~ unsubstituted C₁₋₄ alkyl groups.

4. (Currently Amended) A compound according to ~~any preceding claim 1,~~ wherein R^2 is ~~selected~~chosen from the group consisting of:
- hydrogen atoms,
 - an acyl group,
 - an alkyl group, which is optionally substituted by one or more substituents ~~selected~~chosen from halogen atoms, ~~and~~ hydroxy, alkoxy, and alkylthio groups; and
 - aryl ~~or~~ and heteroaryl groups, ~~which wherein the aryl and heteroaryl groups~~ are optionally substituted by one or more substituents ~~selected~~chosen from halogen atoms, ~~and~~ hydroxy, hydroxyalkyl, hydroxycarbonyl, alkoxy, alkylenedioxy, alkoxycarbonyl, aryloxy, acyl, acyloxy, alkylthio, arylthio, amino, nitro, cyano, mono- ~~and~~ or di-alkylamino, acylamino, carbamoyl, ~~or~~ mono- ~~and~~ or di-alkylcarbamoyl, difluoromethyl, trifluoromethyl, difluoromethoxy, ~~and~~ or trifluoromethoxy groups;
5. (Original) A compound according to claim 4 wherein R^2 is a hydrogen atom.
6. (Currently Amended) A compound according to ~~any preceding claim~~ claim 1, wherein R^3 represents a monocyclic or polycyclic, aryl or a monocyclic or polycyclic heteroaryl group, which wherein the monocyclic or polycyclic, aryl or the monocyclic or polycyclic heteroaryl group are is optionally substituted by one or more substituents ~~selected~~chosen from:
- halogen atoms;
 - alkyl and alkylene groups, ~~which wherein the alkyl and alkylene groups~~ are optionally substituted by one or more substituents ~~selected~~chosen from halogen atoms, ~~and~~ phenyl, hydroxy, alkoxy, aryloxy, alkylthio, arylthio, oxo, amino, mono- or di-alkylamino, acylamino, hydroxycarbonyl, alkoxycarbonyl, carbamoyl ~~and~~ or mono- ~~and~~ or di-alkylcarbamoyl groups; and
 - phenyl, hydroxy, hydroxyalkyl, alkoxycarbonyl, alkoxy, cycloalkoxy, nitro, cyano, aryloxy, alkylthio, arylthio, alkylsulfinyl, alkylsulfonyl, alkylsulfamoyl,

acyl, amino, mono- and ~~or~~-di-alkylamino, acylamino, hydroxycarbonyl, carbamoyl, mono- and ~~or~~-di-alkylcarbamoyl, ureido, N'-alkylureido, N',N'-dialkylureido, alkylsulfamido, aminosulfonyl, mono- and ~~or~~-di-alkylaminosulfonyl, difluoromethoxy, and ~~or~~-trifluoromethoxy groups;

7. (Currently Amended) A compound according to claim 6, wherein R³ represents a monocyclic or polycyclic, aryl or a monocyclic or polycyclic heteroaryl group, ~~which~~ wherein the monocyclic or polycyclic, aryl or the monocyclic or polycyclic heteroaryl group are ~~is~~-optionally substituted by one substituent ~~selected~~chosen from halogen atoms, alkyl groups and hydroxycarbonyl groups.
8. (Currently Amended) A compound according to claim 7, wherein R³ represents a phenyl groups or a monocyclic or polycyclic N-containing heteroaryl group, ~~which~~ groups wherein the phenyl group or the monocyclic or polycyclic N-containing heteroaryl group may be substituted by one substituent ~~selected~~chosen from halogen atoms, alkyl groups and hydroxycarbonyl groups.
9. (Currently Amended) A compound according to ~~any preceding claim~~ claim 1, wherein R⁴ represents:
- a hydrogen atom;
 - a cyano group;
 - an alkyl, alkenyl or alkynyl group, ~~which~~ wherein the alkyl, alkenyl or alkynyl group is optionally substituted by one or more substituents ~~selected~~chosen from halogen atoms, ~~and~~-hydroxy, acyloxy, alkoxy, aryloxy, alkylthio, arylthio, amino, mono- and ~~or~~-di-alkylamino, acylamino, hydroxycarbonyl, alkoxycarbonyl, carbamoyl, and mono- and ~~or~~-di-alkylcarbamoyl groups;
 - or a group of formula

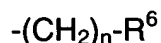


wherein n is an integer from 0 to 4 and R⁶ represents a 3- to 7-membered ring comprising from 1 to 4 heteroatoms ~~selected~~chosen from nitrogen, oxygen and sulphur, which ring is optionally substituted by one or more substituents ~~selected~~chosen from halogen atoms, ~~and~~ alkyl, phenyl, alkoxyphenyl, halophenyl, pyridyl, alkoxycarbonyl, hydroxy, alkoxy, alkylendioxy, amino, mono- and ~~or~~ di-alkylamino, nitro, cyano, and ~~or~~ trifluoromethyl groups;

10. (Original) A compound according to claim 9 wherein R⁴ represents a hydrogen atom or a cyano group.
11. (Currently Amended) A compound according to ~~any preceding claim~~ claim 1, wherein R⁵ represents a group -COOR⁷, ~~or~~ a monocyclic or polycyclic aryl or a monocyclic or polycyclic heteroaryl group, which wherein the monocyclic or polycyclic aryl or the monocyclic or polycyclic heteroaryl group are is optionally substituted by one or more substituents ~~selected~~chosen from:
- halogen atoms;
 - alkyl groups, which are optionally substituted by one or more substituents ~~selected~~chosen from halogen atoms, ~~and~~ hydroxy, hydroxyalkyl, alkoxy, alkylthio, mono- or di-alkylamino, acylamino, hydroxycarbonyl, alkoxycarbonyl, carbamoyl, and mono- and ~~or~~ di-alkylcarbamoyl groups; and
 - hydroxy, alkylendioxy, alkoxy, cycloalkyloxy, alkylthio, alkylsulfinyl, alkylsulfonyl, alkylsulfamoyl, amino, mono- and ~~or~~ di-alkylamino, acylamino, nitro, acyl, hydroxycarbonyl, alkoxycarbonyl, carbamoyl, mono- and ~~or~~ di-alkylcarbamoyl, ureido, N'-alkylureido, N',N'-dialkylureido, alkylsulfamido, aminosulphonyl, mono- and ~~or~~ di-alkylaminosulfonyl, cyano, difluoromethoxy, and ~~or~~ trifluoromethoxy groups;

wherein R⁷ represents

- an alkyl group, which is optionally substituted by one or more substituents ~~selected~~chosen from halogen atoms, ~~and~~ hydroxy, alkoxy, aryloxy, alkylthio, arylthio, oxo, amino, mono- and ~~or~~-di-alkylamino, acylamino, hydroxycarbonyl, alkoxycarbonyl, carbamoyl, and mono- and ~~or~~-di-alkylcarbamoyl groups
- or a group of formula



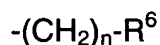
wherein n is an integer from 0 to 4 and R⁶ represents:

- a cycloalkyl or cycloalkenyl group;
- an aryl group, which is optionally substituted by one or more substituents ~~selected~~chosen from halogen atoms, ~~and~~ alkyl, hydroxy, alkoxy, alkylenedioxy, alkylthio, amino, mono- and ~~or~~-di-alkylamino, nitro, acyl, hydroxycarbonyl, alkoxycarbonyl, carbamoyl, mono- and ~~or~~-di-alkylcarbamoyl, cyano, trifluoromethyl, difluoromethoxy, and ~~or~~-trifluoromethoxy groups;
- or a 3- to 7-membered ring comprising from 1 to 4 heteroatoms ~~selected~~chosen from nitrogen, oxygen and sulphur, which ring is optionally substituted by one or more substituents ~~selected~~chosen from halogen atoms, ~~and~~ alkyl, phenyl, hydroxy, alkoxy, alkylenedioxy, amino, mono- and ~~or~~-di-alkylamino, nitro, cyano, and ~~or~~-trifluoromethyl groups;

12. (Currently Amended) A compound according to claim 11, wherein R⁵ represents a monocyclic aryl or heteroaryl group, ~~which~~ wherein the monocyclic aryl or heteroaryl group is optionally substituted by one or more substituents ~~selected~~chosen from halogen atoms and alkyl groups.

13. (Currently Amended) A compound according to ~~any preceding claim~~claim 1, wherein
R¹ is ~~selected~~chosen from ~~the group consisting of~~ hydrogen atoms and alkyl groups, which are optionally substituted by one or more substituents ~~selected~~chosen from halogen atoms, ~~and~~ hydroxy, alkoxy, alkylthio, arylthio, hydroxycarbonyl and alkoxycarbonyl groups; and
R² is ~~selected~~chosen from ~~the group consisting of~~:
- hydrogen atoms,
 - an acyl group
 - an alkyl group, which is optionally substituted by one or more substituents ~~selected~~chosen from halogen atoms, ~~and~~ hydroxy, alkoxy and alkylthio groups; and
 - aryl ~~or~~ and heteroaryl groups, ~~which wherein the aryl and heteroaryl groups~~ are optionally substituted by one or more halogen atoms.
14. (Currently Amended) A compound according to claim 13, wherein R¹ is ~~selected~~chosen from ~~the group consisting of~~ unsubstituted C₁₋₄ alkyl groups and R² is a hydrogen atom.
15. (Currently Amended) A compound according to ~~any one of claims 13 to 14~~ claim 14, wherein R³ represents a monocyclic or polycyclic, aryl or a monocyclic or polycyclic heteroaryl group, which wherein the monocyclic or polycyclic aryl or the monocyclic or polycyclic heteroaryl group is optionally substituted by one or more substituents ~~selected~~chosen from:
- halogen atoms;
 - alkyl groups, which are optionally substituted by one or more substituents ~~selected~~chosen from halogen atoms and hydroxy groups; and
 - cyano, and hydroxycarbonyl groups;

16. (Currently Amended) A compound according to claim 15, wherein R³ represents a phenyl group or a monocyclic or polycyclic N-containing heteroaryl group, ~~which groups wherein the phenyl group or the monocyclic or polycyclic N-containing heteroaryl group~~ may be substituted by one substituent selected~~chosen~~ from halogen atoms, alkyl groups and hydroxycarbonyl groups.
17. (Currently Amended) A compound according to ~~anyone of claims 13 to 16~~ claim 13, wherein R⁴ represents:
- a hydrogen atom;
 - a cyano group;
 - an alkyl, alkenyl or alkynyl group, ~~which wherein the alkyl, alkenyl or alkynyl group~~ is optionally substituted by one or more substituents selected~~chosen~~ from halogen atoms, ~~and hydroxyl and alkoxy groups;~~
 - or a group of formula



wherein n is 0 and R⁶ represents a 3- to 7-membered ring comprising from 1 to 4 heteroatoms ~~selected~~chosen from nitrogen, oxygen and sulphur, which ring is optionally substituted by one or more substituents ~~selected~~chosen from halogen atoms, ~~and alkyl and phenyl groups.~~

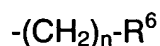
18. (Original) A compound according to claim 17 wherein R⁴ represents a hydrogen atom or a cyano group.
19. (Currently Amended) A compound according to ~~anyone of claims 13 to 18~~ claim 13, wherein R⁵ represents a group -COOR⁷, ~~or a monocyclic or polycyclic aryl or a monocyclic or polycyclic heteroaryl group, which wherein the~~

monocyclic or polycyclic aryl or the monocyclic or polycyclic heteroaryl group are
~~is~~ optionally substituted by one or more substituents ~~selected~~chosen from:

- halogen atoms;
- alkyl groups, which are optionally substituted by one or more substituents ~~selected~~chosen from halogen atoms, ~~and~~ hydroxyl and alkoxy groups; and
- alkoxy, alkoxycarbonyl and hydroxycarbonyl groups;

wherein R⁷ represents

- an alkyl group, which is optionally substituted by one or more substituents ~~selected~~chosen from halogen atoms, ~~and~~ hydroxyl and alkoxy groups
- or a group of formula



wherein n is an integer from 0 to 4 and R⁶ represents:

- a cycloalkyl or cycloalkenyl group;
- an aryl group, which is optionally substituted by one or more substituents ~~selected~~chosen from halogen atoms, ~~and~~ alkyl, hydroxy, alkoxy, alkylendioxy, alkylthio, amino, mono- and ~~or~~ di-alkylamino, nitro, acyl, hydroxycarbonyl, alkoxycarbonyl, carbamoyl, mono- and ~~or~~ di-alkylcarbamoyl, cyano, trifluoromethyl, difluoromethoxy and ~~or~~ trifluoromethoxy groups;
- or a 3- to 7-membered ring comprising from 1 to 4 heteroatoms ~~selected~~chosen from nitrogen, oxygen and sulphur, which ring is optionally substituted by one or more substituents ~~selected~~chosen from halogen atoms, ~~and~~ alkyl, phenyl, hydroxy, alkoxy, alkylendioxy, amino, mono- and ~~or~~ di-alkylamino, nitro, cyano and ~~or~~ trifluoromethyl groups;

20. (Currently Amended) A compound according to claim 19, wherein R⁵ represents a monocyclic or polycyclic aryl or a monocyclic or polycyclic heteroaryl- group,

~~which wherein the monocyclic or polycyclic aryl or the monocyclic or polycyclic heteroaryl group are~~ is optionally substituted by one or more substituents ~~selected~~chosen from:

- halogen atoms;
- alkyl groups, which are optionally substituted by one or more substituents ~~selected~~chosen from halogen atoms, ~~and~~ hydroxyl and alkoxy groups; and
- alkoxy groups.

21. (Currently Amended) A compound according to claim 20, wherein R⁵ represents a monocyclic aryl or heteroaryl group, which is optionally substituted by one or more substituents ~~selected~~chosen from halogen atoms and alkyl groups.

22. (Currently Amended) A compound according to ~~any preceding claim~~ claim 1, wherein R¹ represents an alkyl group, R² represents a hydrogen atom or a group ~~selected~~chosen from acyl, alkyl, aryl ~~and or~~ heteroaryl groups, ~~which wherein the acyl, alkyl, aryl and heteroaryl groups are~~ optionally substituted by one or more halogen atoms, R³ represents a monocyclic or polycyclic aryl or a monocyclic or polycyclic heteroaryl- group, ~~which wherein the monocyclic or polycyclic aryl or the monocyclic or polycyclic heteroaryl group are~~ is optionally substituted by one or more substituents ~~selected~~chosen from halogen atoms, cyano, hydroxycarbonyl and alkyl groups, which are optionally substituted by one or more hydroxy groups, R⁴ represents a hydrogen atom, a cyano group, an alkyl or alkenyl group, ~~which wherein the alkyl or alkenyl groups are~~ optionally substituted by one substituent ~~selected~~chosen from hydroxyl and alkoxy groups or R⁴ represents a group of formula (-R⁶) wherein R⁶ represents a 4- to 6-membered ring comprising from 1 to 3 heteroatoms ~~selected~~chosen from nitrogen, oxygen and sulphur, which ring is optionally substituted by one substituent ~~selected~~chosen from alkyl and phenyl groups and R⁵ represents a monocyclic aryl or monocyclic heteroaryl group, which is wherein the monocyclic

aryl or the monocyclic heteroaryl group are optionally substituted by one substituent selected~~selected~~chosen from halogen atoms, alkyl and alkoxy groups;

23. (Currently Amended) A compound according to ~~any preceding claim~~ claim 1, wherein R¹ is ~~selected~~chosen from ~~the group consisting of unsubstituted C₁₋₄ alkyl groups~~; R² is a hydrogen atom; R³ represents a phenyl group or a monocyclic or polycyclic N-containing heteroaryl group, ~~which groups~~ wherein the phenyl group or the monocyclic or polycyclic N-containing heteroaryl group may be substituted by one substituent ~~selected~~chosen from halogen atoms, alkyl groups and hydroxycarbonyl groups; R⁴ represents a hydrogen atom or a cyano group and R⁵ represents a monocyclic aryl or monocyclic heteroaryl group, ~~which is~~ wherein the monocyclic aryl or the monocyclic heteroaryl group are optionally substituted by one or more substituents ~~selected~~chosen from halogen atoms and alkyl groups.

24. (Currently Amended) A compound according to claim 1, ~~which is one of~~ chosen from:

4-[(3-chlorophenyl)amino]-2-ethyl-5-(1-hydroxyethyl)-6-phenylpyridazin-3(2H)-one

4-[(3-chlorophenyl)amino]-2-ethyl-5-(1-methoxyethyl)-6-phenylpyridazin-3(2H)-one

4-[(3-chlorophenyl)amino]-2-ethyl-6-phenyl-5-vinylpyridazin-3(2H)-one

4-anilino-2,5-diethyl-6-phenylpyridazin-3(2H)-one

5-[(3-chlorophenyl)amino]-1-ethyl-6-oxo-3-phenyl-1,6-dihydropyridazine-4-carbaldehyde O-methyloxime

5-[(3-chlorophenyl)amino]-1-ethyl-6-oxo-3-phenyl-1,6-dihydropyridazine-4-carbonitrile

1-ethyl-5-[[4-(hydroxymethyl)phenyl]amino]-6-oxo-3-phenyl-1,6-dihydropyridazine-4-carbonitrile

1-ethyl-6-oxo-3-phenyl-5-[(3,4,5-trifluorophenyl)amino]-1,6-dihydropyridazine-4-carbonitrile

5-[(4-cyanophenyl)amino]-1-ethyl-6-oxo-3-phenyl-1,6-dihydropyridazine-4-carbonitrile

1-ethyl-3-(4-fluorophenyl)-5-[[4-(hydroxymethyl)phenyl]amino]-6-oxo-1,6-dihydropyridazine-4-carbonitrile

5-[(4-cyanophenyl)amino]-1-ethyl-3-(4-fluorophenyl)-6-oxo-1,6-dihydropyridazine-4-carbonitrile

1-ethyl-3-(4-fluorophenyl)-6-oxo-5-[(3,4,5-trifluorophenyl)amino]-1,6-dihydropyridazine-4-carbonitrile

1-ethyl-3-(4-fluorophenyl)-6-oxo-5-(pyridin-3-ylamino)-1,6-dihydropyridazine-4-carbonitrile

1-ethyl-3-(3-fluorophenyl)-5-[[4-(hydroxymethyl)phenyl]amino]-6-oxo-1,6-dihydropyridazine-4-carbonitrile

5-[(4-cyanophenyl)amino]-1-ethyl-3-(3-fluorophenyl)-6-oxo-1,6-dihydropyridazine-4-carbonitrile

1-ethyl-3-(3-fluorophenyl)-6-oxo-5-[(3,4,5-trifluorophenyl)amino]-1,6-dihydropyridazine-4-carbonitrile

4-[(3-chlorophenyl)amino]-2-ethyl-5-(2-methyl-1,3-thiazol-4-yl)-6-phenylpyridazin-3(2H)-one

4-[(3-chlorophenyl)amino]-2-ethyl-6-phenyl-5-(2-phenyl-1,3-thiazol-4-yl)pyridazin-3(2H)-one

4-[(3-chlorophenyl)amino]-2-ethyl-5-(1-methyl-1H-pyrazol-5-yl)-6-phenylpyridazin-3(2H)-one

4-[[2-ethyl-5-(5-methyl-1,3,4-oxadiazol-2-yl)-3-oxo-6-phenyl-2,3-dihydropyridazin-4-yl]amino]benzonitrile

2-ethyl-5-(5-methyl-1,3,4-oxadiazol-2-yl)-6-phenyl-4-[(3,4,5-trifluorophenyl)amino]pyridazin-3(2H)-one

4-[(3-chlorophenyl)amino]-2-ethyl-6-phenylpyridazin-3(2H)-one

2-ethyl-4-[(3-fluorophenyl)amino]-6-phenylpyridazin-3(2H)-one

2-ethyl-4-(1-naphthylamino)-6-phenylpyridazin-3(2H)-one
2-ethyl-6-phenyl-4-(pyridin-3-ylamino)pyridazin-3(2H)-one
2-ethyl-6-phenyl-4-(quinolin-5-ylamino)pyridazin-3(2H)-one
4-(diquinolin-5-ylamino)-2-ethyl-6-phenylpyridazin-3(2H)-one
4-[bis(3,4,5-trifluorophenyl)amino]-2-ethyl-6-phenylpyridazin-3(2H)-one
4-[bis(3,4-difluorophenyl)amino]-2-ethyl-6-phenylpyridazin-3(2H)-one
4-[(3,4-difluorophenyl)amino]-2-ethyl-6-phenylpyridazin-3(2H)-one
4-[(3-chloro-4-fluorophenyl)amino]-2-ethyl-6-phenylpyridazin-3(2H)-one
4-[(2-ethyl-3-oxo-6-phenyl-2,3-dihydropyridazin-4-yl)amino]benzonitrile
2-ethyl-4-[(1-oxidopyridin-3-yl)amino]-6-phenylpyridazin-3(2H)-one
2-ethyl-6-pyridin-3-yl-4-(pyridin-3-ylamino)pyridazin-3(2H)-one
2-ethyl-4-[(1-oxidoquinolin-5-yl)amino]-6-phenylpyridazin-3(2H)-one
2-ethyl-6-pyridin-4-yl-4-(pyridin-3-ylamino)pyridazin-3(2H)-one
2-ethyl-4-(isoquinolin-4-ylamino)-6-phenylpyridazin-3(2H)-one
2-ethyl-6-phenyl-4-[(3,4,5-trifluorophenyl)amino]pyridazin-3(2H)-one
2-ethyl-4-[(4-fluorophenyl)amino]-6-phenylpyridazin-3(2H)-one
2-ethyl-6-pyridin-3-yl-4-(quinolin-5-ylamino)pyridazin-3(2H)-one
2-methyl-6-pyridin-3-yl-4-(quinolin-5-ylamino)pyridazin-3(2H)-one
2-ethyl-6-pyridin-4-yl-4-(quinolin-5-ylamino)pyridazin-3(2H)-one
2-ethyl-4-[[4-(hydroxymethyl)phenyl]amino]-6-phenylpyridazin-3(2H)-one
4-[(2-methyl-3-oxo-6-pyridin-3-yl-2,3-dihydropyridazin-4-yl)amino]benzonitrile
4-[(2-ethyl-3-oxo-6-pyridin-3-yl-2,3-dihydropyridazin-4-yl)amino]benzonitrile
methyl 4-[(2-ethyl-3-oxo-6-phenyl-2,3-dihydropyridazin-4-yl)amino]benzoate
4-[[2-ethyl-6-(1-oxidopyridin-3-yl)-3-oxo-2,3-dihydropyridazin-4-yl]amino]benzonitrile
2-ethyl-4-(isoquinolin-4-ylamino)-6-pyridin-3-ylpyridazin-3(2H)-one
2-ethyl-4-[(4-methylpyridin-3-yl)amino]-6-pyridin-3-ylpyridazin-3(2H)-one
2-ethyl-4-(isoquinolin-4-ylamino)-6-pyridin-4-ylpyridazin-3(2H)-one
4-[(2-ethyl-3-oxo-6-phenyl-2,3-dihydropyridazin-4-yl)amino]benzoic acid
2-ethyl-4-[(4-methylpyridin-3-yl)amino]-6-pyridin-4-ylpyridazin-3(2H)-one

4-[(2-ethyl-3-oxo-6-pyridin-4-yl-2,3-dihydropyridazin-4-yl)amino]benzonitrile
4-[(2-ethyl-3-oxo-6-phenyl-2,3-dihydropyridazin-4-yl)(methyl)amino]benzonitrile
N-(4-cyanophenyl)-N-(2-ethyl-3-oxo-6-phenyl-2,3-dihydropyridazin-4-yl)acetamide
6-(3-chlorophenyl)-2-ethyl-4-(pyridin-3-ylamino)pyridazin-3(2H)-one
2-ethyl-4-[methyl(quinolin-5-yl)amino]-6-phenylpyridazin-3(2H)-one
6-(3-chlorophenyl)-2-ethyl-4-(isoquinolin-4-ylamino)pyridazin-3(2H)-one
N-(2-ethyl-3-oxo-6-phenyl-2,3-dihydropyridazin-4-yl)-N-quinolin-5-yl acetamide
2-Ethyl-4-(4-hydroxymethyl-phenylamino)-6-pyridin-3-ylpyridazin-3(2H)-one
2-ethyl-4-(isoquinolin-4-ylamino)-6-(4-methoxyphenyl)pyridazin-3(2H)-one
2-ethyl-6-(4-methoxyphenyl)-4-(quinolin-5-ylamino)pyridazin-3(2H)-one
4-anilino-2-ethyl-6-phenylpyridazin-3(2H)-one
2-ethyl-6-(4-methylphenyl)-4-(quinolin-5-ylamino)pyridazin-3(2H)-one
2-ethyl-6-(4-methylphenyl)-4-[(1-oxidoquinolin-5-yl)amino]pyridazin-3(2H)-one
2-Ethyl-6-phenyl-4-(thieno[2,3-c]pyridin-3-ylamino)pyridazin-3(2H)-one
1-Ethyl-6-oxo-3-phenyl-5-(pyridin-3-ylamino)-1,6-dihydropyridazine-4-carbonitrile
1-Ethyl-3-(3-methylphenyl)-6-oxo-5-(pyridin-3-ylamino)-1,6-dihydropyridazine-4-carbonitrile
2-Ethyl-5-(1-hydroxyethyl)-6-phenyl-4-(quinolin-5-ylamino)pyridazin-3(2H)-one
2-Ethyl-6-(4-methylphenyl)-4-(pyridin-3-ylamino)pyridazin-3(2H)-one
2-Ethyl-4-(isoquinolin-4-ylamino)-6-(4-methylphenyl)pyridazin-3(2H)-one
2-Ethyl-6-(4-methylphenyl)-4-[(4-methylpyridin-3-yl)amino]pyridazin-3(2H)-one
2-Ethyl-6-(3-methylphenyl)-4-(pyridin-3-ylamino)pyridazin-3(2H)-one
2-Ethyl-4-(isoquinolin-4-ylamino)-6-(3-methylphenyl)pyridazin-3(2H)-one
2-Ethyl-6-(3-methylphenyl)-4-[(4-methylpyridin-3-yl)amino]pyridazin-3(2H)-one
4-[[2-Ethyl-6-(3-methylphenyl)-3-oxo-2,3-dihydropyridazin-4-yl]amino]benzoic acid
2-Ethyl-6-(5-methylpyridin-3-yl)-4-(pyridin-3-ylamino)pyridazin-3(2H)-one
2-Ethyl-4-(isoquinolin-4-ylamino)-6-(5-methylpyridin-3-yl)pyridazin-3(2H)-one

2-Ethyl-6-(5-methylpyridin-3-yl)-4-[(4-methylpyridin-3-yl)amino]pyridazin-3(2H)-one
2-Ethyl-4-(1,7-naphthyridin-5-ylamino)-6-phenylpyridazin-3(2H)-one
[1-Ethyl-6-oxo-3-phenyl-5-(pyridin-3-ylamino)-1,6-dihydropyridazin-4-yl]methyl acetate
[1-Ethyl-6-oxo-3-phenyl-5-(pyridin-3-ylamino)-1,6-dihydropyridazin-4-yl]methyl butyrate
2-Ethyl-5-[2-(4-methoxyphenyl)-1,3-thiazol-4-yl]-6-phenyl-4-(pyridin-3-ylamino)pyridazin-3(2H)-one
2-Ethyl-4-(isoquinolin-4-ylamino)-6-(6-methylpyridin-3-yl)pyridazin-3(2H)-one
2-Ethyl-6-(6-methylpyridin-3-yl)-4-(pyridin-3-ylamino)pyridazin-3(2H)-one
2-Ethyl-5-[2-(4-methoxyphenyl)-1,3-thiazol-4-yl]-4-[(4-methylpyridin-3-yl)amino]-6-phenylpyridazin-3(2H)-one
2-Ethyl-6-phenyl-4-(pyridin-3-ylamino)-5-(2-pyridin-4-yl-1,3-thiazol-4-yl)pyridazin-3(2H)-one
Ethyl 4-[1-ethyl-6-oxo-3-phenyl-5-(pyridin-3-ylamino)-1,6-dihydropyridazin-4-yl]-1,3-thiazole-2-carboxylate
2-Ethyl-4-(isoquinolin-4-ylamino)-5-[2-(4-methoxyphenyl)-1,3-thiazol-4-yl]-6-phenylpyridazin-3(2H)-one
2-Ethyl-4-[(4-methylpyridin-3-yl)amino]-6-phenyl-5-(2-pyridin-4-yl-1,3-thiazol-4-yl)pyridazin-3(2H)-one
5-[2-(4-Chlorophenyl)-1,3-thiazol-4-yl]-2-ethyl-4-[(4-methylpyridin-3-yl)amino]-6-phenylpyridazin-3(2H)-one
5-[2-(4-Chlorophenyl)-1,3-thiazol-4-yl]-2-ethyl-6-phenyl-4-(pyridin-3-ylamino)pyridazin-3(2H)-one
5-[2-(4-Chlorophenyl)-1,3-thiazol-4-yl]-2-ethyl-4-(isoquinolin-4-ylamino)-6-phenylpyridazin-3(2H)-one
2-Ethyl-4-[(4-methylpyridin-3-yl)amino]-6-phenylpyridazin-3(2H)-one
2-Ethyl-4-[(4-methyl-1-oxidopyridin-3-yl)amino]-6-phenylpyridazin-3(2H)-one
Ethyl 4-[(2-ethyl-3-oxo-6-phenyl-2,3-dihydropyridazin-4-yl)amino]benzoate.

~~and or a~~ pharmaceutically acceptable salts thereof.

25. (Currently Amended) A pharmaceutical composition, comprising a compound according to ~~any one of claims 1 to 24~~ claim 1 in admixture with ~~and a~~ pharmaceutically acceptable diluent or carrier.
26. (Cancelled) ~~Use of a compound according to any one of claims 1 to 24, in the manufacture of a medicament for the treatment or prevention of a pathological condition or disease susceptible to amelioration by inhibition of phosphodiesterase 4.~~
27. (Cancelled) ~~Use according to claim 26, wherein the medicament is for use in the treatment or prevention of a disorder which is asthma, chronic obstructive pulmonary disease, rheumatoid arthritis, atopic dermatitis, psoriasis or irritable bowel disease.~~
28. (Currently Amended) A method for treating a subject afflicted with a pathological condition or disease susceptible to amelioration by inhibition of phosphodiesterase 4, ~~which method comprises~~ comprising administering to the said subject an effective amount of a compound according to ~~any of claims 1 to 24~~ claim 1.
29. (Original) A method according to claim 28, wherein the pathological condition or disease is asthma, chronic obstructive pulmonary disease, rheumatoid arthritis, atopic dermatitis, psoriasis or irritable bowel disease.
30. (Currently Amended) A combination product comprising:
(i) ~~a compound according to any one of claims 1 to 24~~ claim 1; and

- (ii) another compound ~~selected~~chosen from (a) steroids,
(b) immunosuppressive agents, (c) T-cell receptor blockers and
(d) antiinflammatory drugs.

~~for simultaneous, separate or sequential use in the treatment of the human or animal body.~~

31. (New) A method for treating a subject afflicted with a pathological condition or disease susceptible to amelioration by inhibition of phosphodiesterase 4, comprising administering to said subject an effective amount of a compound according to claim 1, and further comprising the simultaneous, separate or sequential administration to said subject of another compound chosen from (a) steroids, (b) immunosuppressive agents, (c) T-cell receptor blockers and (d) antiinflammatory drugs.